



AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No. 10/727,531

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A chuck assembly comprising:
 - a body;
 - a rotary sleeve provided on the body, the rotary sleeve being rotatable;
 - a rotary nut;
 - a jaw which is engaged with the rotary nut, the jaw being movable back and forth to be opened and closed by rotation of the rotary nut rotated together with the rotary sleeve;
 - a ring member disposed to surround the rotary nut;
 - a convex engaging means and a concave engaging means provided between the ring member and the rotary sleeve, such that the ring member and the rotary sleeve are retained and prevented from falling apart from each other by the convex and concave engaging means; and
 - a slotted portion which guides the convex engaging means toward the concave engaging means, such that upon reaching the concave engaging means, the convex engaging means extends into the concave engaging means so as to be held in place,
- wherein the slotted portion is positioned above the concave engaging means in a state where a tip end of the jaw points downwardly.

2. (previously presented): The chuck assembly according to claim 1, wherein an annular assembly including divided nut elements is used as the rotary nut and the ring member is used for holding a shape of the divided nut elements.

3. (previously presented): The chuck assembly according to claim 1 or 2, wherein said convex and concave engaging means comprises a concave portion provided in a circumferential surface of the rotary sleeve and a projection provided in the ring member and fitted and retained with the concave portion.

4. (original): The chuck assembly according to claim 3, wherein the concave portion comprises at least one of a groove and a window.

5. (previously presented): The chuck assembly according to claim 1 or 2, wherein said convex and concave engaging means comprises a U-shaped window composed of a circumferential groove provided in a circumferential surface of the rotary sleeve made of synthetic resin and longitudinal grooves contiguous with both ends of the circumferential groove, and a projection provided in the ring member made of metal, fitted and retained with the circumferential groove of the window, and extending in the circumferential direction of the ring member.

6. (currently amended): The chuck assembly according to claim ~~1 or~~ 2, wherein the convex and concave engaging means is provided in a predetermined angular position with

respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together.

7. (previously presented): The chuck assembly according to claim 3, wherein the convex and concave engaging means is provided in a predetermined angular position with respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together.

8. (previously presented): The chuck assembly according to claim 4, wherein the convex and concave engaging means is provided in a predetermined angular position with respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together.

9. (previously presented): The chuck assembly according to claim 5, wherein the convex and concave engaging means is provided in a predetermined angular position with respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together.

10. (previously presented): The chuck assembly according to claim 1, wherein the convex engaging means includes tabs which are formed on a rim of the rotary sleeve.

11. (previously presented): The chuck assembly according to claim 1, wherein the slotted portion comprises a moveable plate which is deformed by the convex engaging means upon the convex engaging means passing by the moveable plate.

12. (previously presented): The chuck assembly according to claim 1, wherein the concave engaging means extends through a wall of the rotary sleeve.

13. (previously presented): The chuck assembly according to claim 1, wherein the slotted portion includes a tapered surface.

14. (previously presented): The chuck assembly according to claim 1, wherein the concave engaging means is U-shaped.

15. (previously presented): A chuck assembly comprising:

- a body;
- a rotary sleeve provided on the body, the rotary sleeve being rotatable;
- a rotary nut;
- a jaw which is engaged with the rotary nut, the jaw being movable back and forth to be opened and closed by rotation of the rotary nut rotated together with the rotary sleeve;
- a ring member disposed to surround the rotary nut; and
- a convex engaging means and a concave engaging means provided between the ring member and the rotary sleeve, such that the ring member and the rotary sleeve are retained and prevented from falling apart from each other by the convex and concave engaging means,

wherein said convex and concave engaging means comprises a U-shaped window composed of a circumferential groove provided in a circumferential surface of the rotary sleeve made of synthetic resin and longitudinal grooves contiguous with both ends of the

circumferential groove, and a projection provided in the ring member made of metal, fitted and retained with the circumferential groove of the window, and extending in the circumferential direction of the ring member.

16. (previously presented): The chuck assembly according to claim 15, wherein the convex and concave engaging means is provided in a predetermined angular position with respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together.

17. (previously presented): The chuck assembly according to claim 1, wherein the slotted portion is disposed in the rotary sleeve.

18. (previously presented): The chuck assembly according to claim 1, wherein the convex and concave engaging means is provided in a predetermined angular position with respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together

19. (currently amended): A chuck assembly comprising:

a body;

a rotary sleeve provided on the body, the rotary sleeve being rotatable;

a rotary nut;

a jaw which is engaged with the rotary nut, the jaw being movable back and forth to be

opened and closed by rotation of the rotary nut rotated together with the rotary sleeve;

a ring member disposed to surround the rotary nut;

a convex engaging means and a concave engaging means provided between the ring member and the rotary sleeve, such that the ring member and the rotary sleeve are retained and prevented from falling apart from each other by the convex and concave engaging means; and

a slotted portion which guides the convex engaging means toward the concave engaging means, such that upon reaching the concave engaging means, the convex engaging means extends into the concave engaging means so as to be held in place,

wherein the convex and concave engaging means is provided in a predetermined angular position with respect to a convex and concave engaging portion for rotating the rotary nut and the rotary sleeve together, and the convex and concave engaging portion forms a drive key and are separate from the convex and concave engaging means.

20. (currently amended): A chuck assembly comprising:

a body;

a rotary sleeve provided on the body, the rotary sleeve being rotatable;

a rotary nut;

a jaw which is engaged with the rotary nut, the jaw being movable back and forth to be opened and closed by rotation of the rotary nut rotated together with the rotary sleeve;

a ring member disposed to surround the rotary nut;

a convex engaging means and a concave engaging means provided between the ring member and the rotary sleeve, such that the ring member and the rotary sleeve are retained and prevented from falling apart from each other by the convex and concave engaging means; and

a slotted portion which guides the convex engaging means toward the concave engaging means, such that upon reaching the concave engaging means, the convex engaging means extends into the concave engaging means so as to be held in place, wherein the slotted portion does not extend into the concave engaging means.